

## Acronyms and Abbreviations

<b>AAS</b>	Advanced Antenna System
<b>AFCS</b>	array-feed compensation system
<b>AGARD</b>	Advisory Group for Aerospace Research and Development
<b>AIAA</b>	American Institute of Aeronautics and Astronautics
<b>AP</b>	antennas and propagation
<b>APC</b>	antenna-pointing computer
<b>ARISE</b>	Advanced Interferometry between Space and Earth
<b>ARST</b>	Antenna Research System Task
<b>ASAP</b>	Ariane structure for auxiliary payloads
<b>AZ</b>	azimuth
<b>BWG</b>	beam waveguide
<b>CL</b>	centerline
<b>CONSCAN</b>	conical scanning
<b>COSMIC</b>	University of Georgia software distribution center [formerly under contract with NASA]
<b>CP</b>	circular polarization
<b>DFP</b>	deformable flat plate
<b>DFT</b>	discrete Fourier transform
<b>DOY</b>	day of year
<b>DS1</b>	Deep Space 1

<b>DSCS</b>	Defense Satellite Communications System
<b>DSN</b>	Deep Space Network
<b>DSPA</b>	digital-signal-processing assembly
<b>DSS</b>	deep space station
<b>EDM</b>	electrical discharge machining
<b>EIRP</b>	effective radiative power
<b>EL</b>	elevation
<b>FDSPA</b>	digital signal processing assembly
<b>FEM</b>	finite-element method
<b>FET</b>	field-effect transistor
<b>FFT</b>	fast Fourier transform
<b>FM</b>	figure of merit
<b>FSS</b>	frequency-selective surface
<b>GAVRT</b>	Goldstone–Apple Valley Radio Telescope
<b>GO</b>	geometrical optics
<b>HDTV</b>	high-definition television
<b>HEF</b>	high efficiency
<b>HEMT</b>	high-electron-mobility transistor
<b>HET</b>	Hobby–Eberly Telescope
<b>HPLE</b>	half-path-length error
<b>IECE</b>	International Electronics and Communications Exhibition
<b>IEEE</b>	Institute of Electrical and Electronics Engineers
<b>IF</b>	intermediate frequency
<b>IRE</b>	Institute of Radio Engineers
<b>IRG</b>	integral ring girder
<b>ISAP</b>	International Symposium on Antennas and Propagation
<b>JPL</b>	Jet Propulsion Laboratory
<b>LCER</b>	Lewis Center for Educational Research
<b>LCP</b>	left-hand circular polarization
<b>LHCP</b>	left-hand circular polarization
<b>LNA</b>	low-noise amplifier

<b>MAHST</b>	Microwave Antenna Holography System
<b>MARSat</b>	Mars Aerostationary Relay Satellite
<b>NASA</b>	National Aeronautics and Space Administration
<b>NEAR</b>	Near Earth Asteroid Rendezvous [mission]
<b>OPS</b>	operations, operational
<b>PLL</b>	phase-locked loop
<b>PNL</b>	panel
<b>PO</b>	physical optics
<b>pps</b>	pulses per second
<b>R&amp;D</b>	research and development
<b>RA/DEC</b>	right-ascension/declination
<b>RCP</b>	right-hand circular polarization
<b>RF</b>	radio frequency
<b>RFI</b>	radio frequency interference
<b>RH</b>	relative humidity
<b>RHCP</b>	right-hand circular polarization
<b>rms</b>	root-mean-square
<b>RTLT</b>	round-trip light time
<b>SCM</b>	S-band Cassegrain monopulse
<b>SETI</b>	Search for Extraterrestrial Intelligence
<b>SKA</b>	Square Kilometer Array
<b>SNR</b>	signal-to-noise ratio
<b>SOHO</b>	Solar and Heliospheric Observatory
<b>SOHO</b>	Solar and Heliospheric Observatory [spacecraft]
<b>SPC</b>	signal processing center
<b>SPHERE</b>	spherical pair of high-efficiency reflecting elements
<b>SPIE</b>	Society for Optical Engineering
<b>SWE</b>	spherical wave expansion
<b>TDF</b>	Technology Demonstration Facility
<b>TE</b>	transverse-electric
<b>THP</b>	theoretical horn pattern

<b>TM</b>	transverse-magnetic
<b>TMOD</b>	Telecommunications and Mission Operations Directorate
<b>TPR</b>	total-power radiometry
<b>TWM</b>	traveling-wave master
<b>ULNA</b>	ultralow noise amplifier
<b>USNC URSI</b>	The United States National Committee for the International Union of Radio Science
<b>UWV</b>	microwave
<b>VSWR</b>	voltage standing-wave ratio
<b>XCE</b>	X-band Cassegrain experimental feed cone
<b>XEL</b>	cross-elevation
<b>XRO</b>	X-band receive-only feed cone